

IN THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Withdrawn) A method of manufacturing a flat display provided with an array substrate comprising: a signal line layer and a scanning line layer longitudinally and transversely arranged on an insulating substrate; a plurality of pixel electrodes connected to respective intersections of said signal line layer and said scanning line layer via switching elements; an auxiliary capacity electrode electrically connected to said switching element via a semiconductor wiring; and an auxiliary capacity feeder disposed opposite to said auxiliary capacity electrode via an insulating layer, said method comprising a step of:

irradiating a portion of said semiconductor wiring with a laser light in such a manner that a laser intensity R (μJ) and a volume V (μm^3) of said wiring portion satisfy a relation of equation (1):

$$0.01xV+0.6 < R < 0.1xV+1.5 \dots (1)$$

2. (Withdrawn) The method of manufacturing a semiconductor circuit according to claim 1 wherein said laser light is applied from a direction of a surface opposite to a switching element forming surface of said insulating substrate.

3. (Withdrawn) The method of manufacturing a semiconductor circuit according to claim 1 wherein said switching element includes an active layer, and said active layer, said semiconductor wiring and said auxiliary capacity electrode are formed in the same process.

4. (Withdrawn) The method of manufacturing a semiconductor circuit according to claim 3 wherein said active layer, said semiconductor wiring and said auxiliary capacity electrode are formed using polycrystalline silicon.

5. (Withdrawn) The method of manufacturing a semiconductor circuit according to claim 1, further comprising a step of selectively performing laser irradiation with respect to a defective pixel.

6. (Withdrawn) The method of manufacturing a semiconductor circuit according to claim 1, further comprising a step of disposing a liquid crystal layer between said array substrate and an opposite substrate opposite to said array substrate.

7. (Currently Amended) A flat display provided with an array substrate having an upper side and a lower side, the array substrate comprising: signal lines and scanning lines longitudinally and transversely arranged on an insulating substrate; a plurality of pixel electrodes connected to respective intersections of said signal lines and said scanning lines via switching elements; a plurality of auxiliary capacity electrodes electrically connected to said switching elements; and an auxiliary capacity feeder disposed opposite to said auxiliary capacity electrode via an insulating layer, said flat display comprising:

a first wiring layer electrically connected to said auxiliary capacity electrode;

a second wiring layer electrically connected to sources of said switching elements and said first wiring layer; and

a third wiring layer electrically connected to ~~an upper electrode connected to said pixel electrode and the sources of~~ said switching elements,

wherein said first wiring layer is formed on a layer closer to the lower side of the array substrate than the second wiring layer and the second wiring layer is formed on a layer closer to the upper side of the array substrate than the first wiring layer.

8. (Original) The flat display according to claim 7 wherein said second wiring layer and said auxiliary capacity feeder are formed not to be vertically superposed onto each other.

9. (Original) The flat display according to claim 7 wherein said first wiring layer is formed on the same layer as that of said auxiliary capacity electrode.

10. (Currently Amended) The flat display according to claim 7 wherein said second and third wiring layers are formed on the same layer as ~~that of said upper electrode~~.

11. (Original) The flat display according to claim 7 wherein a length of said first wiring layer is set to be equal to that of the second wiring layer.

12. (Original) The flat display according to claim 7 wherein a channel area of said switching element, said auxiliary capacity electrode and said first wiring layer are formed using polycrystalline silicon.

13. (Withdrawn) A method of manufacturing a flat display provided with an array substrate comprising: signal lines and scanning lines longitudinally and transversely arranged on an insulating substrate; a plurality of pixel electrodes connected to respective intersections of said signal lines and said scanning lines via switching elements; a plurality of auxiliary capacity electrodes electrically connected to said switching elements; and an auxiliary capacity feeder disposed opposite to said auxiliary capacity electrode via an insulating layer, said method comprising steps of:

forming a first wiring layer for connecting said switching elements to said auxiliary capacity electrode and said auxiliary capacity electrode;

forming a gate electrode and said auxiliary capacity feeder on a substrate top surface via the first insulating layer;

forming a second wiring layer connected to said switching elements and said first wiring layer, an upper electrode connected to said pixel electrode, and a third wiring layer connected to said switching elements on the substrate top surface via a second insulating layer;

forming a protective film on the substrate top surface; and

forming said pixel electrode on the top surface of said protective film via a third insulating film.

14. (Withdrawn) The method of manufacturing the flat display according to claim 13, further comprising a step of: irradiating, with a laser beam, a predetermined position of said first wiring layer corresponding to a short-circuit place between said auxiliary capacity electrode and said auxiliary capacity feeder from above the substrate to cut said first wiring layer after forming said second and third wiring layers and said upper electrode and before forming said third insulating film.

15. (Withdrawn) The method of manufacturing the flat display according to claim 13, further comprising steps of:

disposing said pixel electrode of said array substrate opposite to an opposite electrode of an opposite substrate via a liquid crystal layer to seal both substrates after said array substrate is completed; and

irradiating, with a laser beam, a predetermined position of said first wiring layer corresponding to a short-circuit place between said auxiliary capacity electrode and said auxiliary capacity feeder which could not be repaired before the completion of said array substrate from the back surface of said array substrate to cut said first wiring layer.

16. (Withdrawn) The method of manufacturing the flat display according to claim 13, wherein said third insulation film is an organic insulating film or a color filter layer.

17. (Previously Presented) The flat display of claim 7, wherein:
the switching elements each include a gate, a drain, and a source; and
the second and third wiring layers are connected to the source of the respective switching elements.